Investigating the Relationship between Washback and Curriculum Alignment: A Literature Review

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Abstract: "Washback" and "curriculum alignment," two dominant fields in education, are well researched individually but rarely are studied together. The purpose of this article is to understand the connection between these two areas and to search for an existing link between them. Scoping review has been used as a method to synthesize the existing washback and curriculum alignment studies to conduct a systematic review. This literature review illustrates that both curriculum alignment and washback studies look at classroom instruction; thus, alignment studies could be a new avenue for washback research if curriculum alignment produces the washback effect on classroom teaching and learning. This paper contributes to the existing literature of both the fields under discussion by mapping out the evidential links between them. The study concludes that by looking at the curriculum alignment and washback together we can expect richer insight of how an aligned educational system can reduce negative exam influence on classroom instruction.

Keywords: washback, curriculum alignment, classroom instruction, scoping review

Introduction

The influence of tests on stakeholders, the educational system, and society at large has always been a constant concern among scholars and researchers. As a result, there is a growing body of literature examining the intended and unintended relationships between teaching, learning, and testing (Cheng, Sun, & Ma, 2015). The influence of testing on teaching and learning is known as washback (Alderson & Wall, 1993). Washback is the inbuilt power that tests have which directly or indirectly influences all stakeholders involved in the system. Washback studies in language education primarily focus on the high-stakes test, examples of which include public examinations, National English matriculation tests, high school-leaving tests, university English exit examinations, the International English Language Testing System (IELTS), and the Test of English as a Foreign Language (TOEFL) (Wei, 2017). Extending Alderson and Wall's (1993) simplified definition, that washback is the influence of testing on teaching and learning, Cheng (1997) defined washback as the "intended and directed function" (p. 36) of an examination change. Cheng attempted to connect the washback effect directly with change in both written and taught curriculum. While implementing an examination, whether explicitly mentioned or not, the general aim is usually to generate a positive washback (i.e., to produce improved teaching and learning situations). Conversely, the unintended, unplanned, or undesired effects of testing on teaching and learning is known as negative washback. In her ground-breaking research on high stakes tests, Shepard (1990) used curriculum alignment almost synonymously with the influence of negative washback on instruction. However, other researchers (Andrews, 1994; Cheng & Fox 2017; Madaus, 1988; Shohamy, 1993) have argued that curriculum alignment focuses on the connection between testing and the teaching syllabus. While there are multiple definitions of curriculum alignment found in the literature, the prevalent view offered by Webb (1997, 2007) is that curriculum alignment refers to the extent curriculum standards, teaching, and testing agree with each other. More simply, alignment of the curriculum denotes the degree to which the expectations stated in the proposed or planned curriculum match what teachers teach in the classroom and upon what students are tested in the examination, or in other words the connection between the stated curriculum, enacted curriculum, and testing.

Washback and curriculum alignment have a common connection regarding how they create influence on classroom instruction. Few studies were found in language education investigating test-washback from an alignment perspective. Alignment studies, however, may provide a useful window for washback researchers to identify the strengths and weaknesses of tests, in particular, and educational programs, in general. This paper, therefore, investigates washback from a curriculum alignment perspective to explore how alignment studies may help to investigate various complexities of washback. For this purpose, a scoping review method has been employed. The foci of this review are as follows: 1) to develop an awareness of how curriculum alignment and washback are related to each other, and 2) to elucidate how washback research could be conducted from a curriculum alignment perspective.

Orientation of the Study

My doctoral study, upon which part of this article is based, aims at investigating whether or not curriculum alignment produces test washback in classroom teaching and learning. The review of the existing washback literature revealed that washback, prior to my study, was not explicitly explored incorporating an alignment perspective. Nevertheless, the research outcomes of some washback studies partially found that misalignment among the educational components was responsible for generating negative or undesired test washback. This article is a way to rationalize, as well as articulate, my understanding of the washback research that I have chosen to conduct in my doctoral research.

Method

I employed a scoping review approach underpinned by Arksey and O'Malley's (2005) framework, which includes five stages: 1) identifying the research questions, 2) identifying the relevant studies, 3) selecting the studies, 4) charting the data, and 5) summarizing the results. First, to ensure that a considerable range of literature was documented to investigate the partnership between washback and curriculum alignment, I developed the initial research questions posed in the introduction. Second, I searched for studies on washback conducted between 1993 and 2018, specifically identifying studies that linked washback research with curriculum alignment studies. The starting year is marked by Alderson and Wall's (1993) as well as Wall and Alderson's (1993) pioneer publications on washback; these later generated an entire range of empirical studies in the area, especially regarding the influence of tests on teaching, learning, teachers, and students. My search contained four types of data sources: journal articles (both conceptual and empirical), doctoral dissertations, books, and book chapters. I used keywords such as "washback," "test impact," "consequences," "effects of tests," "alignment and influence of test/washback," and "curriculum alignment" in the web pages of the journals and in search engines such as Google Scholar, RACER (Rapid Access to Collections by Electronic Requesting, which is the system that one can use to borrow online resources from other libraries), and the Queen's University education library online search engine. The initial search yielded 378 studies from the areas of washback and curriculum alignment. Third, after excluding magazine or newspaper articles and articles not written in English from the original list, I had 362 articles for further examination. I, thus, included studies which directly or indirectly explored the relationship between curriculum alignment and washback. In the first phase of examination, I reviewed the studies based on their titles and abstracts to determine whether they discussed any sort of relationship between curriculum alignment and examination or washback. This screening process produced a short-list of 82 studies. In the second phase, I reviewed the full-texts of the 82 studies and finalized 31 studies to be included in this paper to demonstrate the essential connection between alignment and washback research. Fourth, I mapped out the selected studies into themes to be able to synthesize them in the discussion section, as seen in Table 1. Finally, the synthesized understanding of the relationship between curriculum alignment and washback is presented in the next section.

Table 1: Studies mapped out in categories

Ideas	*Studies*
Narrowing the curriculum	Shepard, 1990; Stecher & Barron, 1999; Stecher, Barron, Chun, & Ross, 2000; Umar, 2018.
Teaching to the test	Darling-Hammond & Wise, 1985; McNeil, 2002; Menken, 2006; Ross, 1997; Shepard, 1991; Smith, 1991; Von Zastrow & Janc, 2004.
Misalignment	Au 2007; Bertenthal & Wilson, 2005; Biggs, 1999, 2002, 2003; Biggs & Tang, 2007; Chen 2002, 2006; Fox & Cheng, 2007; Tan & Turner, 2015; Resnick et al., 2004; Sultana 2018a, 2018b; Qi, 2004, 2005.
Call for curriculum alignment and obstacles in the process of alignment	Biggs, 1999; Hermida, 2009; Ferbežar, Svetina, & Lutar, 2014; Ilc, Stopar, & Gabrovec, 2014; Tan & Turner, 2015; Umar, 2018; Webb 1997a, 1997b.

Linking Curriculum Alignment with Washback

The foundation of washback research was laid by Alderson and Wall's (1993) seminal work proposing 15 hypotheses that, when summarized, state a) tests influence what and how teachers teach and students learn; b) tests influence the degree, depth, contents, methods, and attitudes of teaching and learning; c) tests with important consequences have washback and tests having no important consequences will have no washback; and d) tests have a different range of washback effects on different teachers and learners. These hypotheses guided many studies on washback in the years that followed, which explored the complex nature of this phenomenon (Cheng, 1997, 1998, 2002; Green, 2007; Shohamy, Donitsa-Schmidt, & Ferman, 1996; Wall & Alderson, 1993). In the past 20 years factors related to teaching and teachers were the more commonly researched area in the washback literature (Bailey, 1996; Cheng, 2005; Shih, 2007), until recently when the effects of washback on students and their learning also gained momentum (Cheng & Sun, 2015; Green, 2007a, 2007b; Kim, 2017; Pan & Newfield, 2013; Shih, 2007; Sun, 2016; Tsagari, 2009). Washback studies on teachers and teaching investigated aspects such as teaching methodology, teaching contents, test preparation, and teaching materials (Alderson & Wall, 1993; Cheng, 2005; Shohamy, Donitsa-Schmidt, & Ferman, 1996; Wall, 2005). Washback research on students and learning explored factors such as students' attitude and motivation toward the test, parental influence in test preparation, and test preparation (Allen, 2016; Cheng & Sun, 2015; Green, 2006, 2007; Shih, 2009). Another, currently underexplored, layer of washback focuses on the influence of testing within the curriculum alignment framework.

Alignment is the extent "to which expectations and assessments are in agreement and serve in conjunction with one another to guide the system toward students learning what they are expected to know and do" (Webb, 2002, p. 1). In simple language, alignment is the range of agreement among standards, assessments, and classroom practices (Cheng & Fox 2017; Webb, 1997a, 1997b, 2005). The relationship among curriculum, classroom instruction, and testing was explained by English (1992) in the form of a triangle, where teaching, test, and curriculum are three connected elements. According to English, curriculum alignment ensures the quality of education where teachers teach the content of the examination. The content of the examination should, thus, be aligned with the curriculum. Putting it simply, the objectives of the examinations should be in sync with the objectives of the curriculum, so that teaching the contents of the examination does not go against the curriculum goals.

Exams produce a negative washback on classroom instruction when the larger goals of the planned curriculum are overruled by the narrower goals of the examinations. One of the earliest studies on curriculum alignment conducted in the United States by Shepard (1990) found that test-curriculum alignment directly did not lead to inflated score gains, but narrowing the curriculum did lead to inflated score gains because teachers ignored the overall learning goals of the curriculum to teach the test objectives. Along these lines, based on an alignment study conducted in Pakistan, Umar (2018) noted that when the teaching activities did not correspond with the curriculum objectives, the teaching could not attain the desired learning outcomes. Several researchers argued that schools, particularly teachers, focus mainly on test content rather than on the articulated standards (Stecher & Barron, 1999; Stecher, Barron, Chun, & Ross, 2000), which could produce an undesired washback influence on teaching and learning because of the tendency to ignore the overall teaching and learning goals.

The existing literature suggests that narrowing the curriculum could create a direct teaching to the test situation. A frequently cited example of curricular narrowing is the No Child Left Behind Act (NCLB) of 2001. Under NCLB, English language learners (ELLs) experienced an increased amount of English instruction since teachers were found to align the enacted curriculum to the test at the classroom level through the instruction (Menken, 2006). Von Zastrow and Janc (2004) reported decreased instructional time on subjects that were not tested such as social studies, art, geography, and history in elementary schools. In extreme cases, teaching may focus only on covering the tested materials, instead of engaging the students in learning (Darling-Hammond & Wise, 1985; McNeil, 2002; Ross, 1997; Shepard, 1991; Smith, 1991). Consequently, negative washback is likely to take place when teachers spend instructional time on test preparation and "cramming content" instead of concentrating on the overall objectives of the curriculum.

Misalignment between curriculum objectives and tests contributes to a gap between instructional practices and standard expectations (Bertenthal & Wilson, 2005; Biggs, 1999, 2002, 2003; Biggs & Tang, 2007; Resnick et al., 2004). The absence of alignment among the educational components of the system generates unintended washback. For example, Chen (2002, 2006) investigated the relationship between washback and curriculum innovation in the junior high school English as a Foreign Language (EFL) context in Taiwan, and found misalignment between the

Basic Competence Test (BCT) and the curriculum. The BCT was based on a curriculum revised to promote students' communicative ability. However, the multiple-choice-based content and the gatekeeping nature of the BCT did not cater to the communicative objectives of the curriculum. Thus, the intended objectives of the curriculum were never achieved through the test. Chen suggested that "positive washback effects are more likely to occur when a curriculum and a test are highly matched" (p. 5), which echoed in Tan and Turner's (2015) recent study in the context of high-stakes secondary ESL exit writing exam in Quebec, Canada. Researchers found that, since the exam closely reflected the requirements of the curriculum, the intended washback effect was achieved. On the other hand, Fox and Cheng's (2007) study on the Ontario Secondary School Literacy Test (OSSLT) in Canada reported that the test failed to reflect the curricular goals and classroom practices. Furthermore, the OSSLT caused increase anxiety among second language learners due to resources that were used in the teaching and learning of literacy (e.g., dictionaries) not being available during the test. This situation is more intricate in the extreme test-driven conditions of the South Asian countries. Sultana's (2018a) review of the washback studies in the context of South Asian regions identified misalignment between the English curriculum standards and the English standardized examination as the core reason behind the dominance of the teaching to the test phenomenon found in South Asian classroom instructions. The misalignment between curriculum and examination, as Sultana concluded, caused negative test influence on the overall English teaching and learning in those South Asian contexts.

Au's (2007) metanalysis of 49 qualitative studies suggested that "the nature of high-stakes-test-induced curricular control is highly dependent on the structures of the tests themselves" (p. 258), which is echoed in Sultana's (2018b) analysis of a secondary public English examination in the context of Bangladesh. Sultana's appraisal of the English examination found that the examination did not endorse the Communicative Language Teaching (CLT) principles on which the stated English curriculum in Bangladesh is based. In this situation, classroom English instruction was expected to be influenced by the objectives of the examination instead of the planned curriculum. Similarly, Qi's (2004, 2005) study of the National Matriculation English Test (NMET) conducted in China, found the gatekeeping purpose of the test worked as a powerful trigger for teaching towards the test instead of promoting changes in teaching and learning as was originally intended in the curriculum. These studies only reported the existence of misalignment which potentially caused negative washback. To understand the nature of washback it is necessary to know the extent of misalignment in the system and the reasons for this misalignment.

To resist these challenges, aligning assessments with intended curriculum expectations can offer an improved and efficient education system. Regarding this, Webb (1997b) stated

> Both expectations and assessments are important statements of what the system believes students should know and do. Better aligned goals and measures of attainment of these goals will increase the likelihood that multiple components of any districts or state education system are working towards the same ends… Aligning goals carefully with the assessment system… is an important tool for mapping students' learning progress. (p. 10)

This implies that if curriculum goals are systematically aligned with the assessment standards, classroom instruction will automatically act as the successful bridge between the curriculum expectations and the students' learning. Various constituents of teaching and learning, if aligned, can support each other in deriving the desired outcomes (Biggs, 1999; Hermida, 2009; Umar, 2018). Consequently, the tension of generating negative test washback on the classroom teaching and learning will be reduced.

Alignment between the standards and the examination is also dependent on available resources, time, legislative issues, and other factors (Webb, 1997a). A recent study in Slovenia examining the alignment of textbooks and examinations with the Common European Framework (CEFR) reported that, because of a lack of financial and human resources, it was not possible to follow the CEFR manual in the Slovenian context (Ferbežar, Svetina, & Lutar, 2014). However, the authors commented that the process of alignment, though not wholly successful, helped the stakeholders identify the weaknesses and strengths of the examination. Another study in the same context reported that in judging the alignment, it was doubtful "to what extent the shared educational/cultural background of the panelists affected their judgments" (Ilc, Stopar, & Gabrovec, 2014, p. 301). In the similar vein of argument, Tan and Turner's (2015) study in Quebec, Canada reported when teachers were involved in the process of alignment, and they understood the demands of the examination, it produced "a ripple effect of positive washback among the

teachers" (p. 47), which made students' academic performance improve too. This is one of the few studies where it has been explicitly stated that curriculum alignment or the process of alignment created a positive washback effect.

These studies explore the fundamental idea of this article: that alignment and washback studies are closely linked together and researchers should take the opportunity to study them together.

An Argument for Relationship between Washback and Alignment Studies/Analysis

This review points out that the influence of tests on teaching and learning is, to some extent, explored in the literature related to curriculum alignment. But washback studies lack the input from the curriculum alignment literature that shows how alignment or misalignment amongst the various mechanisms in the educational system may produce or complicate the nature of the exam influence. Findings from several washback studies disclosed that, on many occasions, unintended or unwanted exam influences resulted in teaching to the test because of the existing misalignment in the educational programs. To date, literature has not shown washback studies researched with the inclusion of an explicit curriculum alignment framework or point of view. Based on this identified gap in the literature, this paper has highlighted the relationship between washback and curriculum alignment.

Tests have an impact on the curriculum—positive or negative, desired or undesired—which, in turn, influences classroom teaching and learning. Moreover, "the development and implementation of large-scale assessment programs represent one approach to aligning classroom instruction with state curriculum standards" (Roach, Elliott, & Webb, 2005, p. 220). So, while seemingly dissimilar, both curriculum alignment and washback studies impact classroom instruction. Ideally, curriculum alignment attempts to improve classroom instruction by aligning stated, taught, and tested curriculum. If all fundamental components of the educational program are aligned, teachers do not have to narrow down instruction causing unintended or negative test washback. On the other hand, the fundamental idea behind implementing any examination is to create beneficial washback in classroom instruction so that teachers implement the stated curriculum in their classroom instruction. Alignment studies, therefore, provide a useful window for washback researchers to identify the strengths and weaknesses of tests as well as to audit the agreements among the various components of an educational program. As the concept of curriculum alignment takes a broader focus, it can inform us as to how various components in an educational system interact with each other in generating test washback in teaching and learning. Researchers, academics, and scholars need to explore the idea of studying test washback from a curriculum alignment perspective to uncover new avenues in both the fields.

This study contributes two aspects to the fields of alignment and washback. First, this study attempts to build a powerful channel between the alignment and washback studies and accentuates the importance of exploring the connection for ensuring quality classroom teaching and learning. Second, this study suggests the possibility of incorporating interdisciplinary approaches into research to pave further and deeper research understandings. For example, washback, a phenomenon used in language education benefit from the research insights of alignment studies, which is a concept used in general education, and vice versa. Future washback studies need to address this gap to construct a scholarship about how tests influence teaching and learning.

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